

## Chapter 5

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# The Singapore Vision: *Teach Less, Learn More*

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Singapore's visionary education framework—*Teach Less, Learn More*—was created for the nation's entry into the 21st century (Singapore Ministry of Education, 2004). It is part of a larger framework consisting of four separate but interrelated components: (1) a vision for the whole nation, (2) a vision for Singaporean education, (3) a vision for implementing school change, and (4) a vision for the collaborative constructs—the professional learning communities—that are necessary to anchor the change in each school.

The synergy created by these four distinct, yet interdependent, visions provides the catalyst for significant change efforts in Singapore's schools. In fact, it is the blending of these components that makes the country's journey of change an educational exemplar. Together, these four visions propel substantive change to previously accepted practices, and they support the transformation of Singapore's education system to meet the challenges of the 21st century. The visions create a landscape for others to contemplate as they begin their own journeys of 21st century change. The framework is shown in table 5.1 (see page 98).

Table 5.1: Singapore's Framework

<b>Vision One</b>	The Vision for a Nation: <i>Thinking Schools, Learning Nation</i>
<b>Vision Two</b>	The Vision for Education: <i>Teach Less, Learn More</i>
<b>Vision Three</b>	The Vision for Implementation: <i>Tight, Loose, Tight</i>
<b>Vision Four</b>	The Vision for Collaboration: <i>Professional Learning Communities</i>

**Vision One: The Vision for a Nation**

*Thinking Schools, Learning Nation* is the first vision in the framework. This, the nation's overarching vision, is deeply embedded in the education philosophy for all of Singapore's schools. It defines the proud plan of an entire country committed to an educational system of prestige and excellence. Thinking Schools, Learning Nation is about building a core set of life skills (thinking, creating, problem solving), attitudes (collaboration, wonderment), and dispositions (tolerance for ambiguity, persistence) in students that will create a mindset of innovation and enterprise, which is integral to the prosperity and well-being of the individual and the country. The vision is a national signature that inspires and brings hope.

Singapore possesses a unique synchronicity of city, state, and country that allows the government to plan, implement, and support expansive change. With this synchronicity, they are able to coordinate planning, implementation, and institutionalization at all levels of the change process. They are able to develop support within the community, the schools, and the state. In essence, they are able to create the critical mass necessary for meaningful and lasting change.

**Vision Two: The Vision for Education**

*Teach Less, Learn More* is the second vision in the framework. It is integral to the first vision and speaks to the goal of "teaching in ways that help students learn without being taught" (Loong, 2004). The Teach Less, Learn More vision for education provides a strong and steady anchor for transformational bridging from 20th century education to 21st century skills.

The 21st century skills as defined by the Partnership for 21st Century Skills (2007) are the skills inherent in the Teach Less, Learn More vision. They include the global skills of learning and innovation; career skills; information, media, and technology skills; and practical life skills (family, school, community, state, and nation). These are juxtaposed with core subjects from the various and traditional disciplines, and laced with timely 21st century themes of global awareness, and financial, economic, business, entrepreneurial, civic, and health and wellness literacies. Teach Less, Learn More is manifested in the work of pilot schools, called Teach Less, Learn More (TLLM) Ignite Schools. The TLLM Ignite Schools are focused on promoting intrinsic interest in learning. They are primary and secondary schools of various sizes guided by carefully crafted missions. They seek admission to the pilot program through a competitive application process.

**Vision Three: The Vision for Implementation**

*Tight, Loose, Tight* is the third component in Singapore's framework for the 21st century. A school reform with a goal of Teach Less, Learn More has little sustainability if it is not flexible enough to address a variety of local school needs or able to accommodate immovable constraints. The Tight, Loose, Tight formula combines an adherence to central design principles (tight) with expected accommodations to the needs, resources, constraints, and particularities that occur in any school or district (loose), when these don't conflict with the theoretical framework (tight) and, ultimately, with the stated goals and desired results (tight). Singapore's leaders wisely encourage implementation that adheres to a tight, loose, tight philosophy (Wylie, 2008). While leadership does not provide specific models, they encourage inventiveness and far-reaching thinking through the theoretical underpinnings of the Tight, Loose, Tight model, and they advocate a framework for change shaped by the innovative thinking of the particular school staffs.

**Vision Four: The Vision for Collaboration**

*Professional Learning Communities* is the fourth component. Grounded in the seminal work on professional learning communities (PLCs) by Richard DuFour and Robert Eaker (DuFour & Eaker, 1998;

see also DuFour and DuFour on page 77 of this volume), it completes Singapore's framework for change. As part of the national reform initiative, schools receive professional development to function as PLCs with resources available through the Ministry of Education, the TLLM network of schools, and through their own professional-development planning teams. While every PLC is not yet expert at this process, PLCs are in place in every TLLM Ignite School, in varying stages of effectiveness.

The TLLM Ignite Schools are committed to the Professional Learning Communities vision. These schools are held accountable by the Ministry of Education to demonstrate results. They are expected to perform and to show evidence of their progress each year. Schools are made up of learning teams with members who work interdependently through structured collaboration to propel the implementation process. The collaborative work—the back-and-forth and imperfect process of articulation orchestrated within and across PLCs—distills the essence of each group's thinking. Believing that social discourse bears the fruit of creative thought (Vygotsky, 1978), educators embrace this as their instrument of change, and they welcome the collaborative spirit and the camaraderie that accompanies the teamwork. Team members are committed to implementing their PLC efforts with fidelity. And in the end, the proven PLC process yields insightful and inspired teaching and learning connections. This, in fact, is the hallmark of PLCs. They tend to emerge as the “think tanks” for differentiation, emergent creativity, and real innovation.

### Teach Less, Learn More

Couched within the national mantra of Thinking Schools, Learning Nation, the concept of *Teach Less, Learn More* speaks to lifelong, life-fulfilling, and life-sustaining learning. For the Ministry of Education, this paradoxical statement—Teach Less, Learn More—calls for a subtle look at “remembering why we teach, reflecting on what we teach, and reconsidering how we teach” (Ministry of Education, Singapore, 2004). It is a story told quietly, through the collective voices of the PLCs, as they come to know and understand the meaning of teaching less and learning more.

At first glance, Teach Less, Learn More sounds contradictory. Why do teachers need to teach less? If they do, how do students learn more? When moved beyond the literal interpretation, Teach Less, Learn More naturally becomes a central topic of discussion in the PLCs. These professional discussions reveal answers, but subsequently move the teams along the endless stream of additional questions they generate in their journey. For example, as a team of teachers discusses the perceived need to develop more creative thinking and genuine risk taking from students, teachers question how they might foster that kind of thinking. That question leads to others about the impact of the traditional behaviors of competition and compliance on creative thinking and risk taking. The theory is clear, but the practical path to implementation is complex.

The PLCs undertake and embrace the dedicated process as they learn together and teach together. The change process is about evolutionary thinking, not revolutionary thinking, and it all begins with these critical collaborative conversations.

### Teach Less

*Teach Less* is the first of the complex concepts teachers struggle to embrace within the structure of PLCs. The idea of teaching less is hard to comprehend in a country such as Singapore with an undeniable and well-known focus on traditional subject-matter content and ever-looming high-stakes examinations, with class sizes of forty or more, with traditional didactic teaching models firmly and at times fiercely in place, all in a world ripe with data, facts, figures, images, and in an endless flow of information.

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The world of knowledge expands every day at a rate that is almost incomprehensible. Teachers are expected to absorb a growing body of work in their fields of study. The curricula balloons with information. Teachers are expected to be current and conversant in a wide array of subjects—from politics, economics, and ever-changing geographical data, to medicine, technology, and space exploration; from business,

industry, and educational innovation, to literature, art, music, and the dramatic media.

In addition, the world of instant communication complicates the work of teachers. In the early lifetime of many of Singapore's teachers, the fax machine was an unknown tool. Now, it is already almost obsolete. School leaders, busy appropriating funds to create and wire computer labs, incredulously, had no real knowledge of or access to the Internet. Now, the simple cell phone debuts as the new laptop for ten to fifteen million schoolchildren. It presents just one of the impending technology challenges teachers struggle to keep pace with in this information-rich society. Within a brief span of time, entire newspapers, complete literary works, and classic dictionaries have become electronic, and interactive encyclopedias and global positioning devices have become everyday phenomena. The world is the world of high-speed connections, online communications, blogs, wikis, podcasts, and RSS feeds with Time Machine and Mozy backup systems. Search engines such as Google, Yahoo, and Bing locate targets in milliseconds. Visual media, film libraries, video inventories, YouTube, TeacherTube, Hulu, comedy hours, sportscasts, and online gaming are readily available all day, every day.

Today, the digital world of schooling is immersed in an era of anytime, anywhere learning with Blackboard and Moodle platforms and interactive whiteboards. There are web-based graduate courses, online master's and doctoral programs, webinars and video conferencing, Kindle and Wikipedia. In turn, social-networking tools, such as MySpace, Facebook, LinkedIn, Twitter, and Skype, provide platforms for instant and immediate personal connections both near and far-reaching.

Hand-held PDAs, with hundreds of applications for the savvy user, permeate the environment both in and out of school. Phoning, texting, emailing, indexing, organizing, and crunching data merely scratch the surface of the sophisticated surfing functions savvy users can perform. The iPhone has over 135,000 applications on its open-source platform. Why, indeed, would a transformational education policy advocate teaching students *less* when there is so much *more*

to know, as all of these new tools put even more information at our fingertips on a daily basis?

Professional learning communities must address the Teach Less question, even as they recognize that they could so easily teach more. Through conversations, Singapore's teachers come to understand that Teach Less does not mean that they should actually teach less—not less in terms of hours of teaching time, not less in terms of fundamental discipline-based knowledge, and not less in terms of a watered-down or minimalist curriculum. They know that Teach Less does not mean reduce the core curriculum and teach less essential material. Nor does it mean eliminate, omit, or slight parts of the basic curriculum. Over time, and with many meetings and conversations, they come to accept that Teach Less has a strikingly different connotation that is far removed from the literal translation.

The PLCs' deeper understanding of Teach Less often happens as the teams address two essential concerns: what to teach and how to teach it. *What to teach* involves the quantity/quality conundrum of a standards-based curriculum. *How to teach* refers directly to the delivery methods teachers employ. Members of the PLCs address the quantity and quality question. They know that there is a core curriculum for the various disciplines that has always reigned supreme in their schools. Yet while they are still tied to Singapore's traditional discipline-based curriculum, they are committed to its Teach Less, Learn More vision. They know they must find a way to manage the enormous quantity of content in the curriculum, and, at the same time, look at the issue of the quality of that content as it relates to 21st century skills.

One example of teaching less is the emergent focus on cooperative learning in the TLLM Ignite Schools. TLLM schools frequently incorporate student teamwork for uncovering what they know and think about the learning at hand—a major shift from the traditional Singaporean methods of covering the content in a didactic manner; however, these emergent methodologies can cause concern for teachers as they try to balance the new instructional strategies with the old. The feature box on page 104 shows an example of the kind of conversations that often take place.

*Teacher 1:* Let's use cooperative teams for our investigations of environmental issues. We can jigsaw the various aspects, and let student teams research and unpack the essential information.

*Teacher 2:* How will we guarantee students are addressing the key issues required for the examination? Students could get pretty freewheeling when the teams strike out on their own.

*Teacher 3:* I know exactly what you mean. I have the same concern, yet I know from past projects that even though the use of student teams does present content-management challenges, the student results are always worth it.

*Teacher 1:* What do you mean?

*Teacher 3:* I mean that the students often take the research in a direction of genuine interest that motivates them to go deeper and to really own the learning. It's in their hands, but we are always there to guide the process and to point them in the direction of the essential learnings.

*Teacher 2:* You're right. I have had that same feeling with authentic project learning. It's just tough to let go of the control. But I'm in agreement. Let's use the collaborative team approach.

## Learn More

Through the articulation process inherent in the PLCs, teachers in the TLLM Ignite Schools begin to look at the quantity/quality issue through a different lens. While their system has traditionally compartmentalized the curriculum by disciplines that honor *quantity* of subject matter, they find that this structure can be deliberately

shifted to focus on essential 21st century questions, conceptual themes, and life skills that honor the *quality* of student outcomes.

When PLCs explore the idea of essential questions—characterized by authentic inquiry learning models that require active, engaged learning—they discover these are universal questions that have many possible answers. For example, how is justice served? How literate must one be? What is the nature of conflict? How is balance achieved?

In addition to raising essential questions, PLCs in Singapore begin to examine conceptual themes—the 21st century themes of change, design, conflict, structure, and justice—that broaden the scope of learning beyond the traditional subject-matter content.

**The “what” questions.** In addition to raising essential questions, PLCs in Singapore begin to examine conceptual themes—the 21st century themes of change, design, conflict, structure, and justice—that broaden the scope of learning beyond the traditional subject-matter content. While the study of economics as a subject is a robust part of the core curriculum, teachers soon see how the concept has more lasting impact when it becomes a 21st century theme. For example, when the theme *entrepreneurship* is the pivot point for integrating core economics subject matter, students sense the excitement of a dynamic, modern-day theme. This theme adds a needed relevancy for students and produces opportunities ripe for rich projects in which students take on the simulated roles of entrepreneurs in authentic classroom projects.

Finally, discussions in the PLCs turn to the idea of life skills. Team members see how the skills of learning to learn, problem-based learning, decision making, and technology should be woven into the subject-matter content, not merely as implicit tools used to navigate a unit of study, but rather as a set of invaluable lifelong learning tools, explicitly taught and purposefully imbedded into meaningful core curriculum.

**The “how” questions.** Over the course of many PLC sessions, the teachers’ focus moves to the second type of critical question: *how*? The team reflects on *how* they teach, *how* they deliver the information, and their options as they embrace 21st century skills as the basis for designing dynamic curriculum.

*How can we teach less?* In deep discussions peppered with personal stories of classroom experiences, teachers gradually come to understand that Teach Less does mean teaching less.

less in the traditional didactic delivery of information—less teacher talk, less “pour and store,” and less frequent one-way broadcasts.

They discover that Teach Less means using a wider and deeper instructional repertoire: interactive methodologies, hands-on learning, collaborative interactions, and multimodal learning in the classroom.

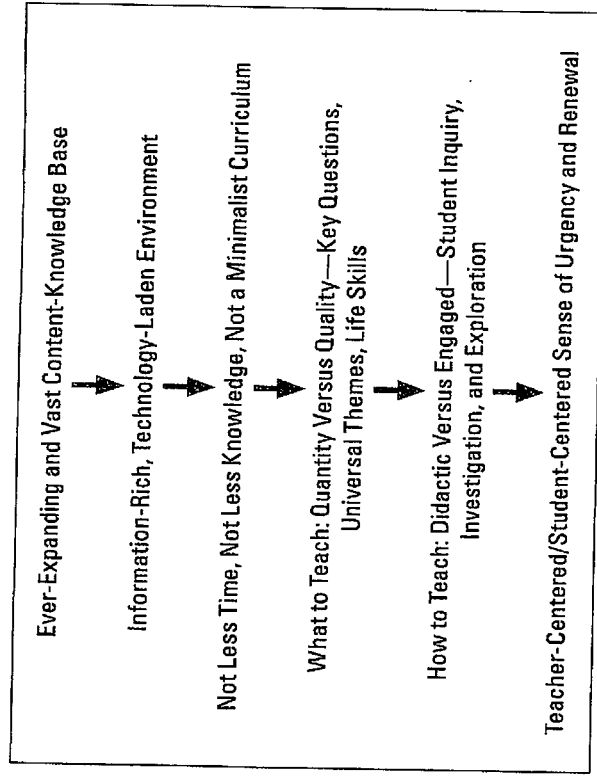
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learning in the classroom. As the PLCs examine models of authentic, engaged learning and learning-to-learn skills, members discover, uncover, view, and review the wide range of complex and powerful curricular models available. These include cooperative learning, brain-compatible learning, Habits of Mind, problem-based learning, multiple intelligences, integrated thematic instruction, integrated curriculum, Understanding by Design, mediated learning, case studies, creativity and innovation, differentiated instruction, assessment as learning, drama as pedagogy, use of the arts as a teaching and learning tool in mathematics and English, and art and teaching for understanding. The PLCs explore and investigate what makes these models worthy of their scrutiny. This is where the conversation of the vision for implementation—Tight, Loose, Tight—begins to surface. This is when teams begin to feel empowered in the freedom to choose widely and wisely within the established structure of the Teach Less, Learn More vision *how* they will teach *what* so that their 21st century students learn more, faster and deeper.

While the PLCs actively seek appropriate theoretical models for their students, the discussion often leads to other insights. They talk about how they *already know* about these authentic, hands-on, student-centered learning models and how they have never felt able to stray from the traditionally accepted, more didactic Singaporean classroom template. And they marvel at the fact that they are now being asked to radically reconceptualize the teaching and learning process. They realize that they are, in fact, being urged to honor the Teach Less initiative, with all of its potential power, and they begin to feel a sense of urgency about renewing their approach to the curriculum. Figure 5.1 tracks this shift in thinking as it often occurs in the journey of the PLCs.

As these critical conversations about what teachers teach and how they teach begin to surface, parallel conversations weave their way into the PLC sessions. The teachers subsequently attend to the idea of more student-centered models of learning and how those theoretical structures fuel the second part of the first vision—Learn More.

*How can students learn more?* From a student perspective, Learn More addresses two crucial foundational questions about the



**Figure 5.1: Flow chart showing PLCs' thinking about the Teach Less concept.**

teaching and learning process. Just as with the earlier questions: What do students learn? And how do they learn it?

As the PLCs explore what students learn, again, the core curriculum is front and center. Even when bridging learning to 21st century skills, these teachers understand that there is no argument about the basics. It is a given that students need core content knowledge. What is not a given—yet—is the urgent need to equip students with skills of life, skills of learning, and skills of an already-present future.

Even when bridging learning to 21st century skills, these teachers understand that there is no argument about the basics.

Teachers are aware that the students they are teaching are already immersed in a plethora of future skills. Teachers talk about how effortlessly students adapt to technology tools. They gobble up shiny new hardware, and they show no hesitation with the ever-expanding repertoire of software applications available. Teachers lament that students are omnivores when it comes to “playing around” with the technological tools that debut almost daily. Professional learning communities provide the perfect platform to discuss this well-known

and often dismissed dilemma: students are ahead of the curve with technology in every way, shape, and manner. Students in today's schools have known no other way in their short lifetimes. Yet it is sometimes acknowledged, but rarely addressed with interest and integrity, how the school curriculum often lags far behind the students in the integration and blending of available technologies.

With this context in mind, conversations in the PLCs invariably lead to the idea that students do need more than a knowledge-based curriculum. Teachers realize that students need a curriculum that goes above and beyond the present state of affairs; that they need a dynamic, more relevant curriculum that is laced with cutting-edge technologies—one that truly does bridge to the 21st century of fast-paced, ever-changing, technology-rich living and learning.

As the discussion unwinds, teachers begin listing the litany of life and learning skills: skills of reasoning, research, and resilience; skills of technology, team building, and teamwork; skills of communication, collaboration, and collegiality; and skills of innovation, invention, and industry. The PLCs talk about how students need to learn skills that develop attitudes, dispositions, and habits of mind; that students need rich, rigorous, and relevant learning experiences that bridge a core content-knowledge base with the unknown and unforeseen challenges of the 21st century and beyond. When discussing what students need to learn, the PLCs see that the list is long and full of new items. They realize that learning cannot be just about discipline-specific knowledge. What students learn must go much further than the status quo. This is an exciting breakthrough for PLCs, and the conversations continue.

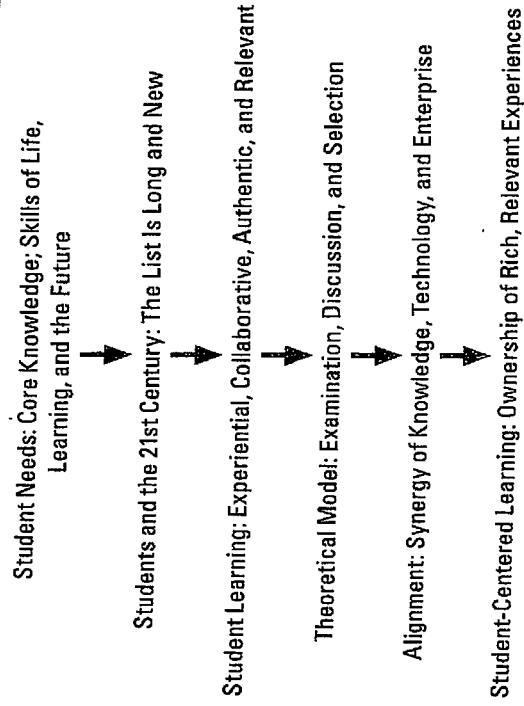
In the natural course of events, these collegial conversations find their way into talks of how students learn the curriculum best. The team discusses teaching methods, what works for them as teachers, and what does not, what other teachers do, and what they have not yet tried. Within these coveted collegial conversations, a whole repertoire of teaching strategies is revealed. This beginning of authentic professional dialogue and articulation sparks changes in practice.

While most teachers agree that their primary mode of delivery is in a straightforward blast of facts, data, and reasons, they also know that in those all-too-rare moments when they diverge from the didactic—in those moments when they orchestrate a unit-driven project or a meaningful excursion—their students are engaged quite differently. They recall the intensity and the involvement of a classroom of eager learners. As the teachers exchange scenarios of these experiences that transform passive learners into lively, active, and engaged participants, they know they have struck a chord.

The teams have more breakthroughs. Realizing that *Teach Less, Learn More* calls for this kind of learner engagement, teacher teams are motivated to try new methods apart from the traditional class instruction. Of course, all this robust conversation occurs over time, over several or many meeting sessions, as the PLCs struggle to come to agreement on their theoretical model. They discuss the various models of student inquiry, investigations, discovery learning, hands-on experimentation, exploration, and problem solving. They consider team collaborations; a deeper, not wider curriculum focus; and a definite and aggressive technology thread. They weigh the pros and cons of each of the many models, narrowing the choices down as they unearth concerns and priorities.

And the PLCs address, again and again, the ever-present concern about the core curriculum, as they are always cognizant of Singapore's high-stakes examinations. Yet they now know that core curriculum can be presented not as inert knowledge to be "covered," but as a dynamic flow of information that incorporates life's challenges in ways that are structured yet experiential, and in ways that are authentic, relevant, and meaningful.

Some *Teach Less, Learn More* school applications are simple, yet they are eloquent in their mindfulness of what and how to teach differently. Other school implementations of *Teach Less, Learn More* are intricate and exquisite in their applied methodologies as they follow the Tight, Loose, Tight implementation vision. Note in figure 5.2 (page 110) the flow of thinking that occurs when school teams move toward their ultimate goal of implementing an innovative model of curriculum that bridges learning to the demands of the 21st century.



**Figure 5.2: Flow chart of PLCs' thinking about the Learn More concept.**

What do the implementation results from a collegial conversation look like? The examples presented in the following sections show the results in two schools. One profile is a primary school implementation plan that marries traditional content with 21st century skillsets. The second depicts a secondary school curriculum plan that reaches rigorously into the rich technologies of the 21st century.

### An Elementary School Example

Changkat Primary School's PLC chose to adopt a simple but eloquent model of instruction (Ministry of Education, Singapore, 2004). They use Costa and Kallick's (2000) *Integrating and Sustaining Habits of Mind* as a theoretical model for understanding narrative text. Teachers at Changkat know the weight comprehension skills carry in terms of continued student success, so they teach about metacognition and the learning-to-learn skills of awareness and control over one's learning. They emphasize student understanding of (1) knowing what they know, (2) knowing what they don't know, and (3) knowing what to do when they don't know. As students learn to take responsibility for reading with understanding, they focus on such habits of mind as managing impulsivity, persistence, continuous

learning, and monitoring, and modifying and managing their own learning. These same students are taught how to systematically code narrative text for more explicit comprehension, using a set of specific symbols: (+) New; (rr) Reread; (?) Question; (\_\_\_\_) Connection; (!) WOW; (Δ) Empathy; (V) Visualize; (\*) Research; (I) Infer; and (=) Clue.

This explicit coding provides concrete evidence of the students' understanding and use of specific strategies that deepen their comprehension. The coding engages complex thinking skills used in qualitative data analysis and interpretation of ethnographic studies. The coding process raises the bar significantly for student understanding of informational text.

This elementary school PLC decided that these are habits of mind and learning-to-learn skills that will serve their students for years to come. While this may appear at first glance to be a more traditionally focused application of Teach Less, Learn More, in truth, it establishes noble goals for these primary students.

The difference between a common and an uncommon application of Teach Less, Learn More lies in the subtle shift in teachers' understanding and execution of core content. The explicitness with which comprehension of a narrative is approached takes comprehension from a "phantom skill" that is often alluded to, but not often actually taught, to explicit skillsets for reading with comprehension (inference, visualization, empathy, and so on), enhanced by lifelong skills of learning to learn.

### A Secondary School Example

The team at Jurong Secondary School collaborates with industry partners and uses a problem-based learning approach (Barrows & Tamblyn, 1980) with differentiated learning (Tomlinson, 1999), and a unique set of e-PBL tools (problem-based learning tools) that immerse students in information-communication technology (Ministry of Education, Singapore, 2004). As part of this unique experience, an engine with artificial intelligence capacity processes student data about learning dispositions. This media-literacy project in which students are evaluating sources of information, communicating ideas through various media tools, and making use of technology with



responsibility and ethics is truly an intricate and eloquent adaptation of the 21st century vision.

### The Challenge of Change

While significant change is happening in these pilot schools, teachers come to realize that what they are doing is not a perfect science. It is an imperfect, messy, human process. Ultimately, however, the PLCs understand the overriding benefits to students. Teachers come to realize that by moving toward student-centered curriculum models, students willingly and assertively take over the ownership of the learning experiences inherent in the innovative curriculum projects being planned and implemented.

These are the trials and tribulations, the tools and techniques of reflective practice that come to the surface as the PLCs mature—as team members adjust to other members, build a sense of community, and begin to feel empowered to move forward with their mission.

A sense of instructional renewal slowly emerges from the dual focus on the core curriculum and student-centered 21st century skills. With the Teach Less, Learn More dichotomy of ideas tediously, intensely, and thoroughly sorted and exposed through the collaborative conversations of PLCs, these school teams continue to dig into their theoretical models of choice and advance the process of alignment to their core curricular content.

As curriculum designs develop, the Learn More aspect of the vision takes shape. The teacher teams begin to grasp why Teach Less, Learn More is neither more nor less of the same. They begin to realize

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that the Teach Less, Learn More vision is about teaching with passion and foresight about what to teach along with relevancy and richness in how to teach. Teachers begin to look past the isolated subject area boundaries toward a richer, fuller, and more meaningful curriculum intertwined with 21st century skills.

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This examination of what students learn and how students learn lies at the center of the Learn More element of Singapore's educational vision. As these PLCs proceed with their dynamic discussions, they

think more about student learning—learning that is relevant to the world students live in and the world they will live in. Teachers talk about students learning more when they are given responsibility for that learning and when they are given the tools needed to meet the challenges they encounter. Teachers discuss how students learn more when they “own” their learning, when they have choices and options, when they must struggle a little to complete the task, and when they feel the joy of accomplishment and achievement. There is no way to measure the power of these collegial conversations as the teachers shift from notions of traditional schooling to teaching for the 21st century. It shows, over and over again, that teachers, working as professional communities of learners, come to embrace the emerging philosophy of Teach Less, Learn More, and, in turn, evolve as more reflective practitioners who focus on the outcomes they have created.

### A Bridge to the 21st Century

All is not perfect in this imperfect process of change, engineered by imperfect humans, functioning as imperfect PLCs. Yet as the process unfolds, as the school teams fight to keep their nation's global stature by producing the highest standardized test scores, they are striving at the same time to shift toward more engaged learning that may not herald the examination at the same priority level as in times past. Nevertheless, these schools continue to demonstrate success for students and are still among the most acclaimed and esteemed in the world's educational community for their willingness to accept the challenges involved in this dual task.

This is the story of how TLLM Ignite Schools conceptualize the 21st century core curriculum above and beyond the basic, foundational learning of traditional schooling. These schools are attempting to unlock the creative minds of teachers and students, set in motion the talents and abilities of the students in their care, and honor Singapore's mission of Thinking Schools, Learning Nation. This is the story of how Singapore's educators are preparing for the 21st century.

This story is not yet complete, and many questions about the future course of the journey still remain: What does Singapore's journey have to do with schools in other nations? What are the lessons

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and transform. They can begin conversations, spur debate, and provide a source for reflection.

*Teach Less, Learn More!* The mantra is simple. This vision is the frame and the fuel for the conversation within the school system's PLCs. What begin as ordinary conversations among colleagues evolve into practical missions for school teams. There are no miracles here. The lessons learned by these PLCs are the lessons of collaboration, communication, and celebration. These lessons translate to other schools and other teachers and other places around the world—the lessons of visionary journeys, creative thinking, authentic learning, and spirited collaborations, the universal lessons of challenge and change.

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